

usually small. The reaction is regulated by the salts of weak acids and bases present, and by the removal of acids by the lungs and kidneys.

The methods for measuring hydrogen ion concentration are taken up in the third part. Those based on the measurement of reaction velocity are omitted, as they are practically useless in biological work. The gas chain method is treated very thoroughly from the theoretical and practical points of view, and the formulae and tables given make the book an excellent laboratory guide for carrying out these measurements. The discussion of the indicator method is somewhat less complete. Methods for preparing solutions of a definite hydrogen ion concentration, a method for carrying out transfer experiments with colloids, and a complete bibliography are appended.

The work done in this field has been limited almost entirely to animal processes. Undoubtedly this factor is of importance in the plant as well, and investigations in this direction should furnish valuable additions to our knowledge of plant processes.—THOMAS G. PHILLIPS.

NOTES FOR STUDENTS

Current taxonomic literature.—O. AMES (Philipp. Jour. Sci. Bot. 9:11-16. 1914) under the title "Orchids of Guam" has published 8 new species.—H. ANDRES (Oesterr. Bot. Zeits. 64:232-255. 1914) in continuation of his studies on the Pirolaceae records further important data on this group.—G. ARNAUD (Bull. Soc. Myc. France 30:355-360. pls. 17-19. 1914) in an article discussing the genus *Henriquesia* characterizes a new genus (*Castagnella*) of the Dothideaceae, which is found on branches of *Quercus coccifera*.—E. G. BAKER (Jour. Linn. Soc. 42:241-246. pls. 9-14. 1914) gives a synopsis of the "African species of *Crotalaria*." The author recognizes 309 species, several of which are new to science.—I. W. BALFOUR and W. W. SMITH (Notes Roy. Bot. Gard. Edinb. 8:191. 1914) have published a new genus (*Kingdonia*) of the Ranunculaceae from China.—H. H. BARTLETT (Cybele Columbiana 1:37-56. pls. 1-5. 1914) characterizes 12 new elementary species of *Onagra*.—O. BECCARI (Webbia 4:293-385. 1914) under the title "Studio sui Borassus" includes the description of a new genus of palms (*Borassodendron*) based on *Borassus Machadonis* Becc. from the Malayan Peninsula.—R. E. BENEDICT (Bull. Torr. Bot. Club 41:291-410. pl. 20. 1914) presents a revision of the genus *Vittaria* in which 7 species are recognized, 2 being new to science.—A. BENNETT (Philipp. Jour. Sci. Bot. 9:339-344. 1914) records one new species of *Potamogeton* and a new hybrid from the Philippine Islands.—A. BÉQUINOT and N. BELOSERSKY (Atti de' Lincei.—Mem. Cl. sc. fisiche ecc. Ser. 5^a. 9:595-734 [1-144]. pls. 1-12. 1913) have published a monographic revision of the genus *Apocynum*, recognizing 26 species of which 4 from the eastern United States are described as new.—E. P. BICKNELL (Bull. Torr. Bot. Club 41:411-427. 1914) in continuation of his studies on the flowering plants of Nantucket includes the Clethraceae, Pyrolaceae, and Ericaceae. New species are recorded

in *Hypopitys* and *Vaccinium*.—G. BITTER (Abh. Nat. Ver. Brem. 23:114–163. 1914) in continuation of his studies on the Solanaceae describes a new species of *Grabowskia* (*G. Sodiroi*) from Ecuador.—J. W. BLACK (Trans. & Proc. Roy. Soc. S. Australia 37:1–5. pl. 1. 1913) describes and illustrates a new genus (*Pectinella*) of the Potamogetonaceae, a salt water plant of Australia. The same author (*ibid.* 121–124. pls. 4, 5) under the title “Additions to the flora of South Australia” characterizes a new genus (*Griffithia*) of the Compositae.—S. F. BLAKE (Jour. Bot. 52:169. 1914) has published a new *Chimaphila* (*C. domingensis*) from Santo Domingo.—F. BOEDEKER (Monatschr. für Kakteenk. 24:52–55. 1914) describes and illustrates a new cactus (*Mamillaria Gürkeana*) from Mexico.—L. BOLUS (Ann. Bolus Herb. 1:20, 21. 1914) has described a new genus (*Pillansia*) of the Iridaceae, based on *Tritonia Templemanni* Baker of Cape Colony.—G. BONATI (Bull. Soc. Bot. Genève II. 5:297–316. 1914) has published several new species of the Primulaceae, Solanaceae, and Scrophulariaceae, and includes a description of a new genus (*Centrantheropsis*) of the last family.—F. BORGESSEN (Dansk Bot. Ark. 2:1–66. 1914) in an article entitled “The marine algae of the Danish West Indies. Part 2. Phaeophyceae” includes the descriptions of several new species and one new genus (*Rosenvingea*).—J. BRIQUET (Ann. Conserv. et Jard. Bot. Genève 11:326–403. 1914) under the title “Decades plantarum novarum vel minus cognitarum” has published upward of 50 new species of flowering plants mostly from Mexico and South America.—N. L. BRITTON (Bull. Torr. Bot. Club 41:1–24. 1914) under the title of “Studies of West Indian plants” has described 26 new species.—N. E. BROWN (Bull. Kew 1914, p. 156) has published a new species of *Chamodora* (*C. nana*) indigenous to Costa Rica. The same author (*ibid.* 168) records a new genus (*Metaporana*) of the Convolvulaceae from Africa, and (*ibid.* 208) describes a new species of *Cotyledon* (*C. paraguayensis*) from Paraguay.—F. BUBÁK (Bot. Közlemények 13:94–96. 1914) describes and illustrates a new genus (*Moeszia*) of the Hyphomycetes, found on leaves of the oak at Budapest, Hungary. The same author (Ann. Mycologici 12:205–220. pt. 8. 1914) under the title of “Beitrag zur Pilzflora von Tirol und Istrien” has described several new species of fungi and proposes the following new genera: *Basilocula*, *Cystodendron*, *Stigmopsis*, *Piricanda*, and *Verticilliodochium*.—B. F. BUSH (Am. Mid. Nat. 3:352, 353. 1914) has published 2 new species of *Antennaria* from Missouri.—E. J. BUTLER and A. H. KAHN (Mem. Dept. Agr. India 6:181–208. pls. 1–6. 1914) on “Some new sugar cane diseases” include the description of a so-called “collar rot” to which is given the scientific name *Hendersonia Sacchari* Butl.—J. CARDOT (Rev. Bryol. 41:37, 38. 1914) has described a new moss to which he gives the generic name *Philiber-tiella*; it is related to *Ditrichium*.—R. CHODAT (Bot. Jahrb. 52, Beibl. no. 115. pp. 70–85. 1914) under the title “Polygalaceae novae” has published 30 new species of *Polygala* of which about one-half are from Mexico, Central and South America.—C. CHRISTENSEN (Am. Fern Jour. 4:77–83. 1914) describes two new American species in *Dryopteris* and records further data toward his

monograph of this genus.—L. DAMAZIO (Bull. Soc. Bot. Genève II. 6:171–172. 1914) describes and illustrates a new fern (*Elaphoglossum Beauverdi*) from central Brazil.—C. DE CANDOLLE (Bull. Soc. Bot. Genève II. 6:107–126. 1914) describes new species in *Piper*, *Cabrlea*, *Gaurea*, *Cedrela*, and *Begonia* from Paraguay. The same author (Not. Syst. 3:38–44. 1914) has published several new species of *Piper* and *Peperomia*, including 4 from Mexico, and (Rep. Sp. Nov. 13:304–311. 1914) describes 16 additional species in these genera from Bolivia.—L. DIRLS (Philipp. Jour. Sci. Bot. 8:157–158. 1913) has published three new species of Menispermaceae from the Philippine Islands.—S. T. DUNN (Notes Roy. Bot. Gard. Edinb. 8:153–171. 1913) in an article entitled “Notes on Chinese Labiatae” describes several species new to science and proposes a new genus, namely *Parlamium*, based on specimens collected in Yunnan by Mr. HENRY.—A. ENGLER (Bot. Jahrb. 51:225–471. 1914) in cooperation with several specialists has published “Beiträge zur Flora von Afrika xliii.” Approximately 200 new species and varieties of flowering plants are described, and the following new genera are proposed: *Rhodohypoxis* Nel of the Amaryllidaceae, *Melliniella* Harms of the Leguminosae, *Gilglochloa* Pilger of the Gramineae, and *Neosloetiopsis* Engler of the Moraceae.—A. W. EVANS (Bull. Torr. Bot. Club 41:577–616. pl. 21. 1914) under the title “Report on the Hepaticae of Alaska” includes the description of two new species of *Plagiochila* and one of *Radula* from Alaska.—J. S. GAMBLE (Philipp. Jour. Sci. Bot. 8:203–206. 1913) under the title “Some additional bamboos of the Philippine Islands” records further data concerning this group of plants and adds a new species from Mindanao.—L. S. GIBBS (Jour. Linn. Soc. 42:1–240. pls. 1–8. 1914) under the caption “A contribution to the flora and plant formations of Mount Kinabalu and the highlands of British North Borneo” has published an important contribution to our knowledge of the flora of Borneo. Prominent specialists have cooperated in the identification of the plants and upward of 80 species are described as new to science. The following new genera are proposed: *Phyllocrater* and *Cowiea* Wernham of the Rubiaceae, *Sigmatochilus* Rolfe of the Orchidaceae, and *Lophoschoenus* Stapf of the Crepyaceae.—J. M. GREENMAN.

Phenomena of parasitism.—Differences in the behavior of *Monilia cinerea* and *Botrytis cinerea* are brought out by the studies of COOLEY and of BROWN. These fungi represent the two sections of the genus *Sclerotinia* the members of which have frequently furnished material for investigations designed to throw light on the phenomena of parasitism. While the apothecial organs of these fungi are much alike, their conidial fructifications are widely different; but more interesting from a biological standpoint is the difference in the mode of formation of sclerotia with which the contrasting behavior brought out in the two papers can perhaps be correlated. COOLEY,³ who investigated the be-

³ COOLEY, J. S., A study of the physiological relations of *Sclerotinia cinerea* (Bon.) Schröter. Ann. Mo. Bot. Gard. 1:291–326. 1914.